

RAIN GARDENS

STORMWATER MANAGEMENT PRACTICES GUIDANCE FOR PRIVATE OWNERS

WHAT ARE RAIN GARDENS?

A rain garden is a stormwater management practice consisting of a shallow depression planted with dense vegetation that collects rainwater from impervious surfaces like rooftops, driveways, and streets and allows it to soak into the ground. This reduces the amount of water that flows into storm drains and nearby waterways which helps prevent flooding, reduce pollution, and replenish groundwater. In addition to helping with stormwater management, rain gardens can provide attractive landscaping, support local wildlife, and improve the overall health of the environment.



Rain garden depth can vary from 3 to 8 inches deep depending on soil type, and they are typically planted with native vegetation that can tolerate both dry and wet periods. These deep rooted native plants help absorb and filter the runoff, while the garden's design encourages the water to slowly infiltrate into the soil rather than running off into streets or gutters.

Rain gardens should be located along the natural path of runoff to capture water effectively, and vegetated swales can be used to help direct water toward the garden as needed. The soil type plays a role in how well a rain garden works: sandy soils allow water to infiltrate quickly, while clay soils may retain water for up to 72 hours. Regular inspection and maintenance of rain gardens is crucial for ensuring proper function and extending the longevity of your stormwater management practice.

DID YOU KNOW?

Native clump-forming grasses and sedges are a great option for planting throughout a rain garden, but can be especially beneficial when concentrated at water entry and exit points where they help to:

- Support neighboring plants
- Slow the flow of water
- Hold soil in place and prevent erosion

COMPONENTS OF RAIN GARDENS

Ponding Zone: receives and holds runoff until it has an opportunity to infiltrate.

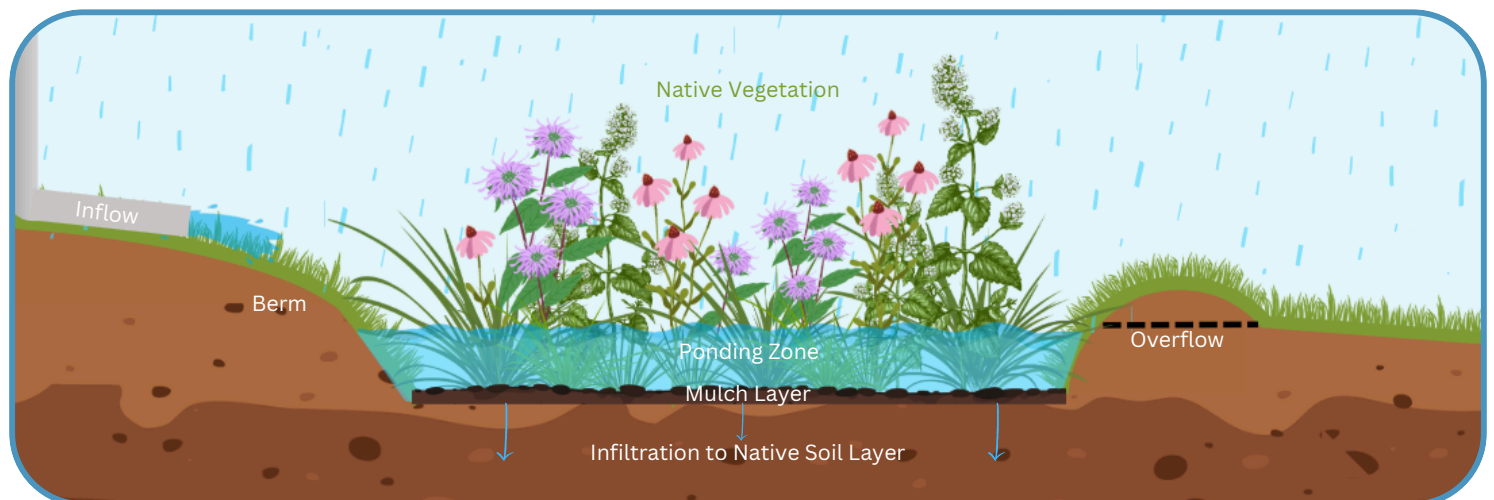
Inflow: where stormwater enters the rain garden. May be from downspouts, impervious surfaces, or overland flow.

Native Vegetation: the first layer to be infiltrated by the runoff, native plants soak up stormwater and their deep roots help promote infiltration.

Mulch Layer: a layer that helps suppress weed growth and conserve water.

Berm: a raised mound that borders the garden and helps contain stormwater.

Overflow: a designed point slightly lower than the top of the berm where excess water exits the garden during heavy rainfall.



MAINTAINING YOUR RAIN GARDEN

Dane County stormwater permits require landowners sign a maintenance agreement requiring specific and regular maintenance of their stormwater practices. Proper maintenance will not only increase the expected life span of the facility, but will also improve aesthetics. While some maintenance tasks can be performed independently, others may require a professional. Below are several common maintenance tasks needed for rain gardens.



CREATING HABITAT

Leave stems and seed heads for wildlife cover or bird food. If removing undesired dead plant material, doing so in late spring will allow for insects, including pollinators such as moths and butterflies, to overwinter within the material.

Activity	Frequency	Maintenance Notes
Routine Inspection	Twice per year	Perform a routine inspection twice a year to ensure the rain garden is operating properly and there are no potential problems such as erosion, unwanted vegetation, overflow obstructions, or structural damage. For assistance on inspections, follow the Dane County BMP inspection guide .
Vegetation Management	As needed	Vegetation plays a crucial role in the performance of a rain garden. Routine vegetation management includes removing weeds or invasive species, replanting in bare spots, removal and replacement of dead vegetation, and cutting back perennial plants each year in late winter/early spring to allow for new vegetation growth. Plants should be watered at least weekly for the first 3 months, depending on the weather.
Trash & Debris Removal	Every 1-3 months	Rain gardens should be kept clear of debris to allow stormwater to flow as intended. Rain gardens near high traffic areas may collect more trash & debris.
Mulch Maintenance	As needed	Rain gardens should be mulched until vegetation has become established, and once vegetation is established, it should be mulched as needed to help keep weeds down. Mulch should be maintained at 2-3 inches of cover.
Compaction Mitigation	As needed	If the rain garden retains surface water for greater than 72 hours, soil compaction mitigation may be needed. Soil compaction mitigation includes taking action to decrease bulk density of the soil, which might be accomplished by a combination of mechanical, vegetative and/or chemical means. Examples of compaction mitigation include: deep tilling, deep ripping, soil amendment and establishment of deep-rooted vegetation. If turf grass is currently present, switch to deep-rooted native species.

The information in this fact sheet provides general maintenance recommendations. Refer to your maintenance agreement for specific requirements.

Dane County Land & Water

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For more information regarding
Stormwater Management in Dane
County, scan the QR code or visit us at
danecountystormwatermanual.com

